PROCEEDINGS

OF THE

LINNEAN SOCIETY

OF

NEW SOUTH WALES.

WEDNESDAY, MARCH 25TH, 1914.

The Thirty-ninth Annual General Meeting, and the Ordinary Monthly Meeting, were held in the Linnean Hall, Ithaca Road, Elizabeth Bay, on Wednesday evening, March 25th, 1914.

ANNUAL GENERAL MEETING.

Mr. W. S. Dun, President, in the Chair.

The Minutes of the preceding Annual General Meeting (March 26th, 1913) were read and confirmed.

The President delivered the Annual Address.

PRESIDENTIAL ADDRESS.

In one respect—the improved status of the Linnean Macleay Fellowships Endowment on 31st December, 1913, and the favourable correlated reaction on the Society's finances—the past year has been rather a notable one in the Society's history. The sum of £33,250 (being a bequest of £35,000 from the late Sir William Macleay for the endowment of four Fellowships, less £1,750 deducted for probate duty) was paid over to the Society in October, 1903; and invested at 4 per cent., the best investment offering at the time. As the income therefrom was insufficient to enable the Council to carry out the terms of the bequest—and would have been so, even if the Executors had not been called upon to deduct the amount of the probate duty—the question of the administration of the trust, under unexpected conditions, was referred to the Equity Court for guidance. In reply to the Society's petition for advice, His

Honor, the Chief Judge in Equity, on 26th August, 1904, directed, among other matters, that –(*a*) "The Council of the said Linnean Society of New South Wales will be justified in appointing three Fellows only with a salary of four hundred pounds per annum until the income from the fund in the said petition mentioned is sufficient to pay the four Fellows the full salary of four hundred pounds per annum." And (*b*): "The income from unawarded Fellowships should be accumulated until the said fund was sufficient to produce an income of one thousand six hundred pounds per annum."

The Council forthwith proceeded to carry out these directions. In October, 1904, and in the same month of every succeeding year up to 1912, the Council offered three Fellowships. The balance of the income, after providing for the salaries of the Fellows, except for small incidental expenses, has been capitalised annually. In this way, on 31st December, 1913, the original capital of £33,250 had been raised to £41,350, while, for the first time, the income for the year (£1,759 15s. 8d., as compared with £1,562 4s. 5d. for 1912) was sufficient to provide for the salaries of the maximum number of Fellows, and also to yield a surplus of £159 15s. 8d., which, at the discretion of the Council, may be taken for the "general use" of the Society: that is, in part, for defraying the cost of printing the papers of Fellows and of the Society's Bacteriologist, as well as the expense of the general administration of the Endowment Funds. Hitherto, this unexpected and unforeseen expenditure has been a charge on the Society's General Fund; and to meet it, and yet avoid a reduction in size of the annual volume of Proceedings (except in so far as the increased cost of printing has affected it), it has been necessary to exercise economy in other directions to a corresponding extent. The prospect of being relieved of this rather burdensome responsibility, and of seeing the realisation of Sir William Macleay's benevolent intentions as he wished them to be realised, is, therefore, very gratifying.

The arrears in the printing have been overtaken, and the Proceedings for the year have been completed. Twenty-six papers were read at the Monthly Meetings, but their average length was

greater than usual; and, though one was withdrawn for some supplementary additions, the remaining twenty-five take up an additional space of about 40 pages, as compared with thirty-seven papers of the year before.

Mr. Hedley's important paper embodying the results of his patient examination of the types of Australian Mollusca in European and American Museums, illustrated with excellent figures of many of them, will be of great service to Australian conchologists. It is the kind of paper, of which Australian naturalists need many more, in other branches of knowledge.

When the suggestive papers of Mr. Andrews and Mr. Benson were read, it was proposed that detailed discussion thereon should be postponed until the papers were in print, and Mr. Benson had returned from England. We may look forward, therefore, to interesting discussions on the development of the *Myrtaceæ*, and on the geology and petrology of the Serpentine-Belt of New South Wales during the current Session, on dates to be announced.

The discussion on "The Study of Zoogeographical Distribution by means of Specific Contours," introduced by Mr. R. J. Tillyard at the Meeting in May, aroused much interest; but it seemed evident that the existing lack of a sufficiently detailed knowledge of the geographical distribution and range of many common groups, both of animals and plants, placed Members who are interested in these, at a disadvantage in applying Mr. Tillyard's views.

The names of nine new Members were added to the Roll during the year. Two Members resigned; two Ordinary Members, Mr. E. Betche, and Mr. T. Stephens, M.A., F.G.S., of Hobart, and one Honorary Member, Dr. Albert C. L. G. Günther, C.M.G., F.R.S., have been removed by death.

Mr. Ernst Betche, Senior Botanical Assistant at the Botanical Gardens, Sydney, who died on 29th June, was born at Potsdam, about sixty-one years ago. He was interested in horticulture in his early days, having first studied at the Horticultural College of his native city; subsequently gaining experience at the Municipal Gardens in Berlin, and at the horticultural establish-

ment of Van Hoote. Afterwards, in the interest of his health, he went to Italy, but without satisfactory results; and he then decided to try the milder climate of the South Seas. He spent some time in collecting plants in Samoa, Tonga, and the Caroline Islands; and finally came to Sydney, in 1881, where he spent the rest of his days. His connection with the Sydney Botanic Gardens dates from the year mentioned. During the next fifteen years he collected extensively in New South Wales, for the Botanic Gardens; and subsequently became Botanical Assistant. Mr. Betche was naturally of a retiring disposition, and this characteristic was intensified by the fact that he was almost a life-long sufferer from a troublesome asthmatic complaint. But his interest in botany never flagged, and he accomplished, in his own unostentatious way, a considerable amount of useful and valuable work in connection with the Gardens and the State Herbarium, the importance of which is not to be estimated by what has been published. He collaborated with the late Mr. Charles Moore, in the production of a "Handbook of the Flora of New South Wales," published in 1893, now out of print, and much in demand; and with Mr. J. H. Maiden, in a long series of contributions, particularly "Notes from the Botanic Gardens, Sydney," in the Society's Proceedings covering the period from 1896-1913.

Mr. Thomas Stephens, the younger brother of the late Professor W. J. Stephens, was born in 1830, and died in Hobart in the latter part of last year. It would be difficult to find another case of two brothers who served, so eminently, and for so long a time concurrently, the cause of education and science, in slightly different ways, in two of the States of the Australian Commonwealth. After taking his degree at Oxford, Thomas Stephens came out to Victoria in 1855, but migrated to Tasmania in the following year, where he spent the remainder of his life. From 1857, he was identified with the Department of Education, first as Inspector of Schools, and finally as Director of Education. He joined the Royal Society of Tasmania in 1858, and from the time of his residence in Hobart, he was an office bearer. He was no less keenly interested in the establishment of the Uni-

versity of Tasmania, and of its forerunner, Christ's College. His official duties provided opportunities for visiting all the settled parts of Tasmania, and led to the acquisition of a considerable knowledge of the geographical and geological features of the country, branches of knowledge in which his interest was of long-standing, and maintained to the last. Mr. Stephens joined this Society in 1904; and, in 1908, he contributed an important paper entitled "Notes on the Geology of the North-West Coast of Tasmania, from the River Tamar to Circular Head," which appeared in the Proceedings for the year mentioned. Other papers are to be found in the Papers and Proceedings of the Royal Society of Tasmania, or in the Report of the Meeting of the Australasian Association for the Advancement of Science held in Hobart in 1902.

Dr. Albert Günther was elected an Honorary Member of the Society in 1883, in appreciation of his valuable contributions to a knowledge of Australian Fishes, Amphibia, and Reptilia. His paper on *Ceratodus*, in the Philosophical Transactions of the Royal Society for 1871, is well known to students. His lengthy and honourable association with the British Museum, as Keeper of the Zoological Department, terminated on his retirement in 1895. He was the author of a monumental series of British Museum Catalogues, Monographs, and papers contributed to the Transactions of numerous Scientific Societies; also the founder and first editor of the Zoological Record. His services to science, both in connection with the British Museum, and in other ways, have been of the highest order; and his death in London, on February 1st, in his eighty-fourth year, closed a distinguished and fruitful career.

Dr. Greig-Smith, Macleay Bacteriologist to the Society, has continued his investigations into the reason for the beneficial action of heat and of the volatile disinfectants, such as chloroform and toluene, upon soils. It has been claimed by the Rothamsted investigators, that the enhanced fertility, that follows the treatment, is due to the destruction of the phagocytic protozoa. If this were so, it would be immaterial whether the one method were employed or the other, and in the case of a double treatment

by both methods, whether heat were applied first or last. It has been found that, while the results are similar in field-soils, they are different in garden-soils. As one of the differences between the two classes of soils is the fatty material removable by disinfectants, it is not improbable that it plays a part in the restriction of the natural fertility. The presence of bacterio-toxins in soils has been denied by the Rothamsted investigators, but there are many reasons why their presence may have been overlooked. They are soluble in water, and are washed out of the soil by rain. They are unstable, and are slowly destroyed during dry weather. Although always present in varying amount, the nutrients may so overshadow them, that their presence may be unnoticed, until they are destroyed by some agent, such as heat, when an enhanced nutritive effect is obtained from the soil-extracts. Furthermore, an appropriate dilution, generally equal parts of soil and water, is requisite to show an optimum toxic effect. Toxic extracts can be obtained from soils by noting these conditions, and a soil, originally with a preponderating amount of nutritive substances, may be made to become toxic by simple incubation in the laboratory. While the soil-toxins are destroyed by heat, those of the subsoil are not. There are thus two classes of toxins in soils, a thermolabile in the soil, and a thermostable in the subsoil. One would imagine that the saturation of an organic manure, such as dried blood, with paraffin or vaseline, would reduce the rate of decay. Laboratory-tests have not borne this out, and the matter is under investigation. The action of naphthalene upon soils was also examined. This substance has recently been recommended for increasing the fertility of horticultural soils. It was found that while it increased the growth of bacteria, they were of a kind which did not bring about the formation of ammonia from dried blood.

Dr. J. M. Petrie, Linnean Macleay Fellow in Biochemistry, contributed two papers during the year, "Hydrocyanic Acid in Plants. Part ii. Its Occurrence in the Grasses of New South Wales," and "Note on the Occurrence of Strychnicine," which will be found in the last Part of the Proceedings. In the

first of these, it is shown that a considerable number of our grasses contain cyanogenetic compounds, but that very few contain free hydrocyanic acid. There are indications that only the latter is a poisoning factor in these grasses. The investigation is, accordingly, being continued in the direction of ascertaining what substances are capable of decomposing the glucoside, and what conditions are necessary to bring about poisonous results. The examination of the alkaloids of certain solanaceous and other plants is being carried on.

Mr. E. F. Hallmann, B.Sc., Linnean Macleay Fellow in Zoology, has almost completed his first paper entitled "Revision of the Monaxonid Species described as new in Lendenfeld's Catalogue of the Sponges in the Australian Museum," which will be read at the Meeting in May. Mr. Hallmann's progress in the study of the Monaxonida has been greatly retarded not only by the inherent difficulties in the way of a satisfactory classification of this group, a subject which one of the most experienced workers at sponges has characterised as "actually repulsive from its difficulties"; but he has been greatly hampered by the grossly inaccurate and misleading character of many of the descriptions given in the Catalogue; and also because the specimens of types, in two different Collections, do not agree either with each other, or with the descriptions; while each of them includes cases of similarly labelled specimens belonging to dissimilar species.

In consequence of the increased income from the Fellowships Fund for last year, for the first time the Council was able to offer four Fellowships. Three applications were received in response. I have now the pleasure of making the first public announcement of the re-appointment of Dr. J. M. Petrie and Mr. E. F. Hallman, to Linnean Macleay Fellowships in Biochemistry and Zoology, and of the appointment of Mr. W. Noël Benson, B.A., B.Sc., to a Fellowship in Geology, for one year, from 1st proximo.

Mr. Benson, in joining the research-staff of the Society, comes with the highest qualifications. He completed the course for the B.Sc. degree in the University of Sydney, in 1907, with First Class Honours in Geology and Mineralogy. For some time he was

Demonstrator in Geology; subsequently Acting Lecturer in Mineralogy and Petrology at the University of Adelaide during the absence of Dr. Mawson with the British Antarctic Expedition under Lieutenant Shackleton; and, afterwards, again Demonstrator in Geology in the University of Sydney, up to the time of his appointment, in 1911, to a Science Scholarship of the Royal Commissioners for the Exhibition of 1851, tenable for two years, but later on extended for a third year. In this way, Mr. Benson was enabled to proceed to Cambridge, and hold a Research Studentship at Emmanuel College. On the acceptance of his thesis on "The Geology and Petrology of the Great Serpentine-Belt of New South Wales," Mr. Benson was admitted to the degree of B.A., last year. Three portions of his thesis have been published in our Proceedings for 1913, and the rest of it will form the subject of future communications. Mr. Benson has now had some considerable experience in research work under very favourable conditions. He has contributed a number of Papers to the Proceedings of this Society, to the Journals of the Royal Society of New South Wales and South Australia, or to other publications. While at Cambridge, he took the complete course of study given to senior students; and he comes to us with high credentials, from his Australian teachers as well as from Professor Bonney and Mr. Harker, of Cambridge. This instructional work has been supplemented by visits to the laboratories of Universities in Germany and Switzerland. Mr. Benson has also had special opportunities of seeing for himself, and learning as much as possible of the geology of certain areas in England, Scotland, and the Hartz Mountains, under very advantageous circumstances, a knowledge of which has an important bearing on the work he has done in connection with the Serpentine Belt, or proposes to continue, on his return to the State. On taking up the work of his Fellowship next month, Mr. Benson will continue the line of work upon which he has made a beginning, so as to complete, in detail, a study of the geology of the country from Tamworth to Warialda, with a general account of the physiography, special attention being given to the Attunga and Moonbi districts, where the intrusion of the granite has pro-

duced some remarkable contact-effects on the tuffs, lavas, and other members of the Devonian Series, analogous to those of the Hartz Mountains. The Serpentine Belt also needs further investigation southward from Nundle towards the Myall Lakes, through an area at present little known geologically.

At the Meeting of the Society in September, Mr. R. H. Cambage called attention to a laudable legislative effort then about to be made in England, to check the destruction of bird-life in distant countries; and, on his motion, it was resolved—That the Linnean Society of New South Wales considers it to be highly desirable that the Importation of Plumage (Prohibition) Bill, now before the British Parliament, should become law, and desires that a letter be written to the Premier of this State for transmission to the Secretary of State for the Colonies, urging the passing of the Bill. By the courtesy of the Premier, the terms of the Resolution were carried out; and on February 7th a letter was received from the Under-Secretary, Chief Secretary's Office, Sydney, notifying "that a Despatch has been received from the Secretary of State for the Colonies by the Prime Minister of the Commonwealth, requesting that your Society be informed that the Bill was introduced into Parliament by His Majesty's Government, and will be re-introduced next Session." From the newspapers, we have since learned that the second reading of the Bill was moved in the House of Commons by the Postmaster-General, Mr. C. E. Hobhouse, on 9th March, and agreed to by 284 votes to 27. The mover expressed the hope that an international conference on the subject would be held without delay, for, as he said, "Britain was really acting towards the Colonies as the receiver of stolen goods." Naturally, we should like to know how the Bill is viewed by naturalists and scientific bodies in Europe; but at this distance, it is difficult to find out and follow the trend of scientific opinion. A lengthy criticism of the Bill, by Sir Harry Johnston, will be found in "Nature" for December 11th, 1913 (p. 428). This writer contends that the Bill "is a very mildly worded measure, which will not satisfy root-and-branch reformers, for it exempts from supervision personal clothing worn or imported by individuals entering this country

from abroad." But he adds, further, that any legislation rather than none, as the thin end of the wedge, is to be welcomed. In reply to Sir Harry, Mr. H. O. Forbes, as a British ornithologist interested in the Royal Society for the Protection of Birds, agrees that the Bill does not go far enough, but he considers that the weakness in the Bill pointed out by Sir Harry, can be eliminated by making the wearing of wild birds' feathers in England by British subjects, as illegal as the importation of feathers ("Nature," December 25th, p. 476). Mr. Forbes continues: "The real object desired by the Royal Society for the Protection of Birds is the prevention of the great cruelty for which the plumage trade is responsible, of the extermination, and of the reduction, towards that point, of the beautiful and beneficient fauna of the world." The international attitude towards the principle of the Bill is thus referred to in "Nature" for January 29th, 1914 (p. 617): "The United States Government has made the importation of birds' plumage penal, as well as prohibited the wearing of feathers. Austria and Germany are in accord with England as to the necessity of putting a stop to this nefarious traffic by similar laws. France and Belgium stand on the other side, for the plumassiers are so influential that it is hopeless for the Government of either of these countries even to propose such a protective Bill." Lastly, in "Nature" for February 5th (p.639) will be found a very gratifying message, cabled to the Zoological Society of London, by the Zoological Society of New York, on the occasion of the Annual Meeting. The hope is expressed that unanimous support will be given to the Hobhouse Bill, which is designed to reinforce the protective measures passed by Congress. The message continues—"The effect of the American Bill has been instantaneous and widespread, and is now receiving unanimous support all over the United States. The very passage and enforcement of the Bill has created a sentiment for wild-life protection in many quarters where it did not exist before. The millinery trade has adapted itself to the new conditions, and the law is acknowledged to be most beneficial in its results." In conclusion, we have still to remember that the Hobhouse Bill provides for only one phase of the complex

problem of the preservation of the world's bird-life, namely, the checking of the destruction of birds for trade purposes. Another phase needing consideration, which is not in evidence in Europe or the United States, but which manifests itself in Australia in connection with the destruction of rabbits by poison, is the preservation of useful birds, many of them not having ornamental plumage of value to the trade, whose welfare is not provided for by the Hobhouse Bill.

I have pleasure in making known to Members, that the Society is in receipt of a very cordial invitation from Mr. J. A. Barr, Manager of the Panama-Pacific Exposition, to be held in San Francisco from February to December, 1915, supported by Mr. J. P. Bray, American Consul-General in Sydney, to hold a Meeting during the Exposition. In thanking these gentlemen for their kindness and courtesy, they have been informed that the invitation would be communicated to the Members at the Annual Meeting; and that, thereafter, if a sufficient number are able to visit the Exposition, the Council will inquire as to the possibility of arranging for the acceptance of the invitation. It may be presumed that the object of holding such a Meeting will be to provide an opportunity of discussing the Australian aspect of problems of general interest; or matters arising out of scientific exhibits or the assembling of scientific men from all parts of the world in connection with the Exposition. Members who contemplate visiting the Exposition are requested to give in their names to the Secretary in good time. Perhaps if the number of representatives of any one Society is not very large, it might be possible to arrange for a joint Meeting of visitors from Australia.

An event entitled to notice is the return of the second contingent of the Australasian Antarctic Expedition, which left our shores in 1912, under the leadership of Dr. Douglas Mawson. It is not intended to touch on the tragic losses, nor the fortitude of the leader—which have already been fully brought to the attention of members and the public. But the actual, and potential scientific results are such, that they are well worthy of the attention of those interested in Australian science. The outstanding feature of the

work carried out by this Expedition, is that investigations in all the leading lines, occupying the attention of previous ventures, have been prosecuted in an entirely new region, or practically new, for Dumont D'Urville did not land on the mainland, and brought back no information concerning it, except the main fact, that there was land. Wilkes had taken a few soundings. Sixty of the 90° of the Australian Quadrant were new ground, and it was there, that operations were carried out in relation to physiography, meteorology, and other branches of science. The result is that the coast has been mapped through 33° of longitude, and the extension of the continent has been shown for the remainder by means of soundings indicating continental slopes or a shelf.

Large areas of the land were sledged over, and rough topographical maps prepared. A study of the great Ice Sheet, both on the plateau, and along its coastal face, has been illuminating, and adds new data for the study of glaciation. Marginal shelf-ice on a large scale, floating glacier-tongues, a booming glacier, and an avalanche-cascade were special features studied. The occurrence of extraordinarily large bergs, up to 40 miles in length by 20 miles broad, and observations upon their annual rate of travel, form a matter of interest.

The territory of Adelie Land was extended to reach the area of the Main Base. King George Land is considerably to the east of the Main Hut, Queen Mary Land at our western base, Wilkes' Land is south of Dumont D'Urville's Clare Land, which was proved to be non-existent.

From these terse facts it will be seen that though all the details of the geography of the Australian Quadrant are not yet known, it is assured that the salient features are covered.

Important dredging work was carried out; unfortunately, owing to weather conditions, it was only on the last cruise that really satisfactory results were obtained, and on this venture every dredge was successful. Dredgings at all depths between 50 fathoms and two miles were made along the region of the Antarctic Circle (in the Australian Quadrant). These dredgings are in the charge of Mr. Hunter, and it is understood that the distribution is to be

carried out by the Australian Museum and the University. The results of the detailed examination are bound to be of the highest importance. The earlier cruises were accompanied by Mr. Waite and Professor Flynn, of the University of Tasmania, but weather conditions militated against successful results.

A very large number of soundings have been taken,including two lines of soundings between Australia and the Antarctic Continent—one from Tasmania to Adelie Land, the other from Queen Mary Land to Adelaide. A well-marked submarine elevation was discovered to the south of Tasmania, another to the north of Queen Mary Land—the relics of old land-connections. A very large series of oozes was obtained during the dredgings.

In Antarctic waters, besides the usual cherts, gneisses, red sandstones, etc., wood and coaly matter were dredged up on several occasions, and once scoriaceous lava, this to the north of where North's Highland appears on Wilkes' maps. Dr. Mawson is of the opinion that this comes from a local volcanic centre.

The severe weather conditions at both bases, especially at Adelie Land, where almost unimaginable and frequent blizzards were found to prevail, are most astonishing. It is now known that the average wind velocity, on the Antarctic Continent, is greater as one decreases the distances to the Geographical Pole; localities on the same latitude may, however, vary through wide limits, the two extremes being Amundsen's base and Mawson's.

The snowfall is phenomenal in the northern portion of the continent—probably up to 2 or 3 feet in the day. Magnetic observations were regularly taken, and when published, hourly values will be given for the whole period.

Observations on the Aurora were continued in connection with the state of the æther, and as to its capacity of transmitting wireless waves. It is of interest to note that an accurate longitude was established in Adelie Land, by the use of the wireless installation. Antarctic bacteriology was studied by Dr. McLean, and cultures were prepared.

Another station was Macquarie Island, which has been mapped and contoured by Mr. H. Blake; the sea-elephants and the abun-

dant life were studied by Mr. Hamilton; the meteorology by Mr. Ainsworth; and the geology by Mr. Blake. All the older rocks are igneous, gabbros predominating; glacial tills and glacial lakes occur.

The results of the examination of the collections, and the study of the observations are now being taken in hand, and I feel sure that, when published, they will be such as not only to confer credit on the work, but to prove of the greatest interest to the scientific world.

In a few months we shall be taking part in the most important scientific gathering ever held in Australia, for, in August next, the representatives of the British Association for the Advancement of Science will assemble in the various capitals. These will comprise about 400 members, although a greater number applied for inclusion. Amongst those who are coming, are many of the leading men of science of the world, for besides the main British party, invitations issued to many leaders in science of foreign countries have also been accepted. Sir Oliver Lodge and Sir Edward Schäfer, the last two past-Presidents, are included.

It has been decided that an advance section, consisting of about 70 members will call at Western Australia, while the main party will visit Adelaide, Melbourne, and Sydney, and arrangements have been made for some of the members to visit Brisbane and New Zealand, while the question of some going to Tasmania is now under consideration.

Sectional Presidential addresses will be delivered at Adelaide, Melbourne, Sydney, and Brisbane; and papers in the various sections will be read at Melbourne, Sydney, and Brisbane.

The President of the Association will deliver the first half of his address in Melbourne, and the remainder in Sydney.

The popularity of the visit will be increased by the discourses and lectures of prominent members. Two discourses will be delivered to members, and two citizens' lectures to the public, and of these, the latter will be largely under the control of the Workers' Educational Association. For the discourses in Sydney, two eminent lecturers, Sir James Rutherford and Professor Grafton Elliott

Smith, have been selected; while several have offered their services for the citizens' lectures, but a final choice has not yet been made.

From a scientific standpoint, the gathering will be the most brilliant ever assembled in Australia; and, as many of our visitors will be engaged in lecturing on their return, it will be seen that the assistance, which has been granted to this Association by the various Australian Governments, must meet with ample reward.

The remainder of the Address was devoted to a consideration of the relations of the Permo-Carboniferous fauna of Australia to those of other parts of the world; and will appear later in separate form.

Mr. G. A. Waterhouse, on behalf of Mr. J. H. Campbell, Hon. Treasurer, who was indisposed, presented the balance sheet for the year 1913, duly signed by the Auditor, Mr. F. H. Rayment, F.C.P.A., Incorporated Accountant; and he moved that it be received and adopted, which was carried unanimously. *Abstract:* General Account, Balance from 1913, £207 11s. 4d.; income, £1,111 16s. 7d.; expenditure, £1,039 18s. 11d.; transfer to Bookbinding account, £11 11s. 0d.; balance to 1914, £279 9s. 0d. Bacteriology Account, Balance from 1912, £39 5s. 9d.; income, £543 7s. 10d.; expenditure, £588 5s. 6d.; Dr. balance to 1914, £5 11s. 11d. Linnean Macleay Fellowships Account, Income, £1,759 15s. 8d.; expenditure, £868 8s. 4d.; transfer to Capital account, £891 7s. 4d.

No nominations of other Candidates having been received, the President declared the following elections for the Current Session to be duly made :—

President : Mr. W. S. Dun.

Members of Council (to fill six vacancies) : Professor David, C.M.G., D.Sc., F.R.S., Messrs. W. S. Dun, J. R. Garland, M.A., Professor W. A. Haswell, M.A., D.Sc., F.R.S., A. H. Lucas, M.A., B.Sc., J. H. Maiden, F.L.S., &c.

Auditor : Mr. F. H. Rayment, F.C.P.A.

A very cordial vote of thanks was accorded, by acclamation, to the President, on the motion of Dr. Kesteven, seconded by Mr. A. F. B. Hull.